

Vancomycin-resistant Enterococci (VRE) Infection

What are vancomycin-resistant enterococci (VRE)?

Enterococci are a type of bacteria (germ) normally present in the gut and in the female genital tract. They may also be found in the environment.

Antibiotics are drugs used to treat infections caused by germs. Sometimes germs can change so that particular drugs will no longer kill the germs. When this happens, these germs are called “antibiotic resistant”. Over time, enterococci have become difficult to treat with the antibiotic vancomycin. If vancomycin no longer works to kill the enterococci germs, the germs are known as vancomycin-resistant enterococci (VRE).

Who gets VRE Infection?

People with the following conditions are more at risk for VRE infection:

- Previous treatment with vancomycin or other antibiotics for long periods of time
- Recent hospitalization(s), especially if long courses of antibiotic treatment are involved
- A weakened immune system due to certain diseases or conditions
- History of surgical procedures, such as abdominal or chest surgery
- Tubes going into the body (such as a catheter)

How is VRE spread?

VRE bacteria are most often spread by direct person-to-person contact, usually on hands. VRE may also be spread by contact with contaminated items (e.g., medical equipment) or environmental surfaces (e.g., toilet seats, door knobs). VRE is not spread through the air by a cough or sneeze.

What are the symptoms of VRE infection?

Some people carry enterococci bacteria in their bodies without any symptoms. This is called being “colonized”. A person may be colonized for a long time before getting sick or may never get sick.

VRE can cause infections of the urinary tract, the bloodstream, or of wounds associated with catheters or surgical procedures. Symptoms will depend on the site of infection, but include fever and pain at the site. Wound infection symptoms may also include swelling, redness, and discharge (pus). Most VRE infections occur in hospitals.

How soon after exposure do symptoms appear?

In most situations, exposure to VRE does not lead to illness. The person might carry the VRE in his or her body, but not get sick at all, or might get sick from the VRE days, weeks, or months later.

How is VRE infection diagnosed?

If VRE is suspected, a sample can be taken from the infection site (e.g., wound, blood, or urine) and sent to the laboratory for testing. If enterococci bacteria are isolated, more laboratory tests are

needed to determine which antibiotics will be effective for treating them. If the bacteria are resistant to the antibiotic vancomycin, a diagnosis of VRE is made.

What is the treatment for VRE infection?

Most VRE infections can be treated with antibiotics other than vancomycin. Laboratory testing can help healthcare providers determine which antibiotics will work. Except in special circumstances, no treatment is needed for people who carry VRE but do not have any symptoms.

What can be done to prevent the spread of VRE?

If you currently have VRE infection or had it in the past, tell any healthcare providers who treat you. There are special things that can be done to prevent the spread of VRE in healthcare settings. Healthcare providers should wear gloves and a gown when caring for patients with VRE and should clean their hands before and after caring for every patient. Hospital rooms and medical equipment should be cleaned and disinfected after use. Patients with VRE should keep their hands clean and follow any other instructions given by their healthcare providers. Friends or family members visiting a patient with VRE should follow the healthcare facility's recommended precautions.

When outside of a healthcare setting, people with VRE and their care givers/family members should keep their hands clean, especially after using the bathroom or before preparing food. Care givers who might come in contact with body fluids (such as stool or bandages from infected wounds) that could contain VRE should wear gloves and wash their hands after removing the gloves. Areas of the home that could become contaminated with VRE, such as the bathroom, should be cleaned frequently.

How can I get more information about VRE infection?

- If you have concerns about VRE infection, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/local-health-districts/>.
- Visit the Centers for Disease Control and Prevention website at <http://www.cdc.gov/HAI/organisms/vre/vre.html>.

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